

IN THE CLAIMS

Claim 1 (original): Multi-color rotary printing machine,

- in which one printing plate support (1) each is assigned to the colors to be transferred onto the printing plate, whereby said printing plate support (1) supports a printing plate (6) and
- said printing plate support (1) can be attached to a mandrel or a cylinder (5) of a rotary printing machine in order to transfer the print image onto the print substrate,
- whereby the rotary printing machine has register devices (6, 7, 8) that determine the positions of the printing plates (6) with respect to one another and
- whereby the register devices (6, 7, 8) comprise sensors (3) that determine the positions of the printing plate support (1) in the printing machine and
- whereby the register devices (6, 7, 8) provide information regarding the positions of the printing plate support (1) before, at the start of or during the print process with the help of sensors (3),
- based on which control signals can be provided,
- whereby the register devices (6, 7, 8) comprise a control device (7) using which it is possible to generate control signals based on the positions of the printing plate support (1) determined by the sensors (3) and it is possible to control the drives of the mandrels or the print cylinders (5) using said control signals in such a manner that the phase position of the mandrels or the print cylinders (5) in relation to one another can be changed,
- and the register accuracy of the print increases,
- and whereby each printing plate support (1) contains at least one information carrier (2) from which information

can be removed using a sensor (3), whereby the information that can be read out automatically is suitable for determining the relative position of the printing plate support on the mandrel or on the print cylinder (5) of a rotary printing machine,

characterized in

- that the information carrier (2) is arranged outside the printing mandrel (6) and
- that the information carrier (2) is arranged between the print image (6) and the edge of the printing plate support that is turned toward the front end of the mandrel or of the print cylinder (5).

Claim 2 (original): Multi-color rotary printing machine pursuant to the afore-mentioned claim characterized in that the information carrier (2) has an oblong, preferably rectangular shape whereby its long side is essentially aligned in the peripheral direction of the printing plate support.

Claim 3 (currently amended): Printing plate support pursuant to claim 1 any of the preceding claims characterized in that the information carrier (2) surrounds the periphery of the mandrel or the cylinder (5) of the printing machine.

Claim 4 (currently amended): Printing plate support pursuant to claim 1 any of the preceding claims characterized in that the information stored on the information carrier can be read out optically, magnetically or electromagnetically.

Claim 5 (currently amended): Printing plate support pursuant to claim 1 any of the preceding claims characterized in that the information carrier (2) comprises a magnetic tape or a sequence of magnetizable individual elements.

Claim 6 (original): Process for setting up a multi-color rotary printing machine before and at the start of the print process

- in which one printing plate support (1) each is assigned to the colors to be transferred onto the print substrate, whereby said printing plate support (1) supports a printing plate (6)
- and in which the printing plate supports (1) are attached to mandrels or cylinders (5) of a rotary printing machine in order to transfer the print image onto the print substrate and
- in which register devices (6, 7, 8) determine the position of the printing plates (6) with respect to one another,
- whereby the register devices (6, 7, 8) comprise sensors (3) that determine the positions of the printing plate support (1) in the printing machine and
- whereby the register devices (6, 7, 8) provide information based on the positions of the printing plate supports (1) determined by the sensors (3),
- whereby control signals can be derived based on this information and
- whereby the register devices (6, 7, 8) comprise a control device (7) using which it is possible to generate control signals based on the positions of the printing plate support (1) determined by the sensors (3)
- and whereby the control device uses these control signals to control the drives of the mandrels or the print cylinders (5) in such a manner that the phase position of the mandrels or the print cylinders (5) in relation to one another can be changed,
- so as to increase the register accuracy of the print,
- and whereby printing plate supports (1) are used that

each contain at least one information carrier (2) from which information can be removed using a sensor (3),  
and whereby this information is read out automatically and used for determining the relative position of the printing plate support on the mandrel or on the print cylinder (5) of a rotary printing machine,  
characterized in that

- printing plates are used in which the information carrier (2) is arranged outside the printing plate (6) and
- whereby the information carrier (2) is arranged between the print image (6) and the edge of the printing plate support that is turned toward the front end of the mandrel or of the print cylinder (5).

Claim 7 (currently amended): Process pursuant to claim 6 ~~the preceding claim~~ characterized in that during the adjustment of the relative phase position of the mandrels or the print cylinders, the printing plate supports (1) rest in relation to the mandrels or print cylinders (5) assigned to them.

Claim 8 (currently amended): Process pursuant to claim 7 ~~the preceding claim~~ characterized in that a multi-color rotary printing machine ~~pursuant to any of the claims 1 to 5~~ is used in which one printing plate support (1) each is assigned to the colors to be transferred onto the printing plate, whereby said printing plate support (1) supports a printing plate (6) and

- said printing plate support (1) can be attached to a mandrel or a cylinder (5) of a rotary printing machine in order to transfer the print image onto the print substrate,
- whereby the rotary printing machine has register devices (6, 7, 8) that determine the positions of the printing plates (6) with respect to one another and
- whereby the register devices (6, 7, 8) comprise sensors

- (3) that determine the positions of the printing plate support (1) in the printing machine and whereby the register devices (6, 7, 8) provide information regarding the positions of the printing plate support (1) before, at the start of or during the print process with the help of sensors (3),
- based on which control signals can be provided,
- whereby the register devices (6, 7, 8) comprise a control device (7) using which it is possible to generate control signals based on the positions of the printing plate support (1) determined by the sensors (3) and it is possible to control the drives of the mandrels or the print cylinders (5) using said control signals in such a manner that the phase position of the mandrels or the print cylinders (5) in relation to one another can be changed,
- and the register accuracy of the print increases,
- and whereby each printing plate support (1) contains at least one information carrier (2) from which information can be removed using a sensor (3), whereby the information that can be read out automatically is suitable for determining the relative position of the printing plate support on the mandrel or on the print cylinder (5) of a rotary printing machine,

characterized in

- that the information carrier (2) is arranged outside the printing mandrel (6) and  
that the information carrier (2) is arranged between the print image (6) and the edge of the printing plate support that is turned toward the front end of the mandrel or of the print cylinder (5).

Claim 9 (new): Printing plate support pursuant to claim 2 characterized in that the information carrier (2) surrounds the periphery of the mandrel or the cylinder (5) of the printing

machine.

Claim 10 (new): Printing plate support pursuant to claim 2 characterized in that the information stored on the information carrier can be read out optically, magnetically or electromagnetically.

Claim 11 (new): Printing plate support pursuant to claim 3 characterized in that the information stored on the information carrier can be read out optically, magnetically or electromagnetically.

Claim 12 (new): Printing plate support pursuant to claim 2 characterized in that the information carrier (2) comprises a magnetic tape or a sequence of magnetizable individual elements.

Claim 13 (new): Printing plate support pursuant to claim 3 characterized in that the information carrier (2) comprises a magnetic tape or a sequence of magnetizable individual elements.

Claim 14 (new): Printing plate support pursuant to claim 4 characterized in that the information carrier (2) comprises a magnetic tape or a sequence of magnetizable individual elements.